

Climatological Data for September, 1909. DISTRICT No. 12, COLUMBIA VALLEY.

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GENERAL CLIMATOLOGICAL CONDITIONS.

The transitional change from summer to winter usually takes place in September the most noticeable feature of which is a gradual increase in the number of days with rain and a corresponding decrease in the number without rain. This change is brought about by the low pressure areas following a track farther south than is the case earlier in the season. The change to the southward of the tracks followed by low pressure areas is a gradual movement and is first observed in British Columbia and a few weeks afterwards in Washington and northern Idaho and finally in Oregon and northern California.

On the 9-10th, 16th and 28th, 29th, 30th disturbances of the winter type moved across British Columbia to Alberta and their influence was felt over a large portion of the Columbia River drainage area, but the centers of these storms were all some distance north of the International Boundary and no low pressure areas of the winter type moved sufficiently far south to include any portion of this district within the central portion of their path.

On sixteen days the weather was controlled by anticyclones and from the 11th until the close of the 23d, except on the 16th, the weather that usually accompanies this type of pressure prevailed. It was during this period that most of the heavy frosts of the month were reported. In the intervals between the high pressure areas small, sluggish depressions, evidently of convectional origin moved irregularly across the district. Electrical storms, local rains, hail and wind rushes were associated with these disturbances and the fact that so little damage was done is almost entirely due to the undeveloped and thinly settled conditions in the localities where they were most violent.

The rains on the 10th instant were sufficiently heavy to either put out or effectually check the forest fires burning prior to that time. These fires were most severe in the four southwestern counties in Oregon. In the Coquille Valley near Myrtlepoint one fire damaged 1,500 acres of timber to the extent of \$2,050 according to the estimates of the C. A. Smith Lumber Company who are the owners of most of the land in the burnt area. No information regarding the amount of damage from other fires has been received but it is thought the damage this year by forest fires is much less than usual.

TEMPERATURE.

The temperatures averaged generally above normal and there were but few localities where it was below the seasonal average. The first ten days were the warmest, and the coolest weather generally occurred between the 18th and the 24th. The highest mean temperatures were experienced in the bottom lands along the Columbia River from the mouth of the Okanogan River in the north central portion of Washington to the mouth of the Deschutes River in Oregon. Over this narrow strip the mean temperatures ranged between 65° and 70°. The coolest sections were at the headwaters of the Snake River in Wyoming and at the headwaters of the Missoula River in Montana where the mean temperature was between 48° and 55°. Over the greater part of the area under consideration the mean temperature ranged between 55° and 65° being coolest near the immediate coast and at high elevations and warmest in valleys having a low or moderate elevation.

The highest mean temperature was 69.9° at Blalock, Gilliam County, Oreg., in the Columbia River watershed and the lowest mean temperature was 47.8° at Snake River, Yellowstone Park, Wyo. The elevation of Snake River is 7,000 feet and of Blalock, 237 feet. The highest temperature was 105°

at Fairview, Coos County, Oreg., on the 15th, and the lowest was 9° at McCall, Boise County, Idaho, on the 22d.

On the morning of the 18th killing frosts occurred generally throughout the agricultural sections east of the Cascade Mountains, but the damage was nominal owing to the season being so far advanced. Following this date heavy to killing frosts were frequent until the 24th in nearly all localities except in the Willamette Valley and along the immediate coast where no frost sufficiently heavy to injure the staple crops had formed up to the close of the month.

PRECIPITATION.

The rainfall averaged less than usual in nearly all parts of Oregon, Washington, and in the Kootenai, Pend Oreille, Clarks Fork, and Flathead drainage areas; it was above the average in the Snake River drainage area, in Idaho, and Wyoming. In the Columbia River Basin in Washington and Oregon, and in the Puget Sound drainage area, the month was so dry that the supply of water became exhausted in a number of wells, small creeks, and reservoirs; while over the Snake River drainage area in Idaho and Wyoming the rainfall was in some places three or four times as much as the usual amount. The number of rainy days in Idaho was reported to be the greatest on record. There was not a day that rain did not fall some where, but the only dates when precipitation was general were the 10th and the last three days of the month.

Most of the rain that fell was local in character, and generally associated with thunderstorms in mountainous sections. Some of these thunderstorms were very severe, especially those that occurred in the Snake River Valley between the 2d and the 6th. On the 1st a very heavy rain fell on the hills back of Grandview in Owyhee County, Idaho. Gulches in that locality which ordinarily are dry, and had never been known to carry more than 18 inches of water, were filled to a depth of 6 or 7 feet, and the Grandview Canal was seriously damaged. Only 0.40 of an inch of rain fell at Grandview, but it is believed that within a mile and a half of that place the total rainfall was several inches.

On the 2d a heavy shower began in the Shoo-fly region, 12 miles southeast of Grandview, Idaho, and passed from there to Garnet, Idaho, in the southwest corner of Elmore County. The Grandview Canal was still further injured by this storm, making the total damage to the canal by the two storms about \$5,000. At Garnet a part of the well-known Hall orchard was washed out and the cellar of the dwelling house was filled so deep with water that some of the contents were washed into the river. This storm came during a break in the record kept at Garnet caused by a change in observers, therefore the amount of rainfall is unknown.

On this day a heavy rain and hailstorm occurred in the vicinity of Burley and Heyburn, small towns about 150 miles farther up the Snake River. At Burley the streets and cellars were flooded, and some merchandise was damaged in the stores. The most serious feature of this storm, however, was the hail which fell in such large quantities that it had not all melted by the next morning. Some of the hailstones were one and one-half inches in diameter, and hundreds of acres of standing grain in the surrounding farming country was badly injured. Also on this day, the 2d, a storm passed down the Burnt River Valley in Baker County, Oreg., which caused a flood in that stream sufficiently high to wash away a few small bridges. The rainfall was heaviest near the mouth of Burnt River between Durkee and a small siding a few miles west of that station. At this place several hundred feet of railroad track were

washed away, and passenger trains were delayed fifteen hours before the necessary repairs could be made. No record of rainfall is kept at Durkee, but at Unity, near the head of Burnt River, 1.82 inches of rain fell between 2:50 and 4 p. m.

On the 3d a heavy rain fell in the vicinity of Juliaetta in Latah County, Idaho, which washed out several hundred feet of the track of the Northern Pacific Railway. No record of the rainfall is kept at Juliaetta, but it is said that the water came down one of the gulches in a wall several feet high. On this day in Baker City, Oreg., 0.55 of an inch of rain fell between 1:57 and 2:17 p. m., which is at the rate of 1.65 inches an hour. The winds attending this storm were light, but the electrical display was brilliant, and the city light and power plant suffered some damage from lightning.

On the 5th a thunderstorm moved northeastward from some place to the west of Baker City in Baker County, Oreg., to Cornucopia in the same county for a distance of 40 or 50 miles. The center of the storm did not pass over Baker City, and the rainfall measured there on that day does not give an adequate idea of the intensity of the rainfall along the track of this storm. At Cornucopia, 1.02 inches of rain fell between 11 a. m. and 1.40 p. m., and the observer writes that at a little distance from his station the rainfall was so heavy as to be called a cloudburst. In this neighborhood, canyons that had been dry for years were suddenly filled with water, and many bridges between Cornucopia and Carson on Pine Creek were washed away. A few houses were struck by lightning, and the track of the new railroad on Snake was covered by a mud slide that took thirty-six hours to remove.

The rains of the 28th and 29th were very beneficial, as they were the first rains of consequence since spring over a large strip of farming country near the eastern base of the Cascade Mountains in Oregon.

On and after the 10th, snow occasionally fell at the elevated stations at the headwaters of the Snake River in Wyoming and at the heads of the streams flowing into the Columbia River in Montana. No snow fell in the lower valleys.

The greatest monthly rainfall was 6.39 inches at Goat Lake, Snohomish County, Wash., and there were two stations in Oregon, viz: Telocaset and Beaver Creek, that reported no

rainfall during the month. The greatest rainfall in twenty-four hours was 2.28 inches at Hat Creek, Mont., and the 2d-3d. Other heavy twenty-four-hour falls were 2.10 inches at Edie, Idaho; 2.05 inches at Pompeii, Oreg.; 1.92 inches at Goat Lake Wash.; 1.90 inches at Lake Keechelus, Wash.; 1.65 inches at Mountain Park, Oreg., and 1.31 inches at Glenora, Oreg.

RIVER CONDITIONS.

The well-distributed rains at the headwaters of the tributaries of the Columbia River in Montana, and at the headwaters of the Snake River in Wyoming, combined with the diminished evaporation due to an excess of cloudiness, had the effect of keeping the rivers at a slightly higher stage than usual in those States, and also in Idaho, but in Washington and Oregon, where there was a deficiency in rainfall, the stages of the principal rivers were slightly below normal. At Bonners Ferry, Idaho, the mean stage was 2.8 feet above the average for the last five years; the Pend Oreille River at Newport, Wash., maintained a stage of 0.4 of a foot above the average for the last five years, and the Snake River at Weiser, Idaho, averaged 0.7 of a foot above the mean for a similar period. The Columbia River from Wenatchee to tide water was between a foot and a foot and a half below the average obtained from records extending back about ten years.

On the Snake River at Weiser, the highest water occurred on the 30th, and the lowest on the 1st, but in the lower portion of the Columbia River the highest water was on the 1st and the lowest on the 30th, thus showing a slow but gradual decline in the main portion of the stream during the entire month.

MISCELLANEOUS.

On the 20th dust storms were reported in portions of Morrow and Umatilla counties in Oregon, and high winds occurred in a few localities on the 10th, 16th, 17th, 20th, 25th, and 28th, both in Oregon and in Washington. The winds on the 16th were general over a large area, and those on the 28th were strongest along the coast; a maximum velocity of 68 miles from the southeast having been reported on that day at North Head, Wash.

There were no foggy days east of the Cascade Mountains, and but few to the west of that range.

TABLE 1.—Climatological data for September, 1909. District No. 12, Columbia Valley.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.				Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelting.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of part'ly cloudy days.		Number of cloudy days.	Prevailing wind direction.
Montana.																				
Anaconda.	Deer Lodge.	5,300	8	54.4		79	28	29	23	39	2.35		T.	11	10	7	13		C. D. Demond.	
Bison Mountain.	Powell.	7,240									3.81		1.29	1.8					C. H. Anderson.	
Columbia Falls.	Flathead.	3,100	13	57.4	+ 4.1	88	6	26	19 ¹	52	3.47	+ 1.20	0.87	0.0	7	7	10	5	sw.	Mrs. I. M. Kennedy.
Como.	Ravalli.		2	54.0		80	16	30	23	38	2.20		0.70	0.0	9				Hiram Platt.	
Darby.	do.	3,825									2.52		0.85	0.0	6	11	7	12		W. A. Kerlee.
Dayton.	Flathead.	2,800																	Charles M. Lawson.	
East Anaconda.	Deer Lodge.	5,500	4	53.8		80	24 ¹	32	21	43	1.90		0.55	0.2	8	10	7	13	sw.	C. D. Demond.
Fortine.	Flathead.	2,975	4	54.7		87	7	21	23	51	0.97		0.60	0.0	7	17	2	11	sw.	Mike Petery.
Hamilton.	Ravalli.	3,575	7	57.4		83	8	32	23	35 ¹	1.99		0.46	0.0	8	13	13	4	n.	J. B. Currie.
Hat Creek.	Powell.	6,000									5.59		2.28	0.0	11	16	8	6	w.	M. K. Landreth.
Jocko.	Missoula.	3,100	1																George W. Robbins.	
Kalispell.	Flathead.	2,965	11	55.2	+ 1.7	83	5	30	23	41	1.21	- 0.34	0.64	0.0	8	12	9	9	w.	U. S. Weather Bureau.
Lost Creek.	Deer Lodge.	5,200																	Frank Henault.	
Missoula.	Missoula.	3,225	26	57.1	+ 1.3	87	9	30	23	45	2.38	+ 1.18	0.80	0.0	10	13	6	11		U. S. Weather Bureau.
Ophir.	Powell.	8,800									2.89		1.20	0.0	7	13	5	12	w.	E. S. Wilton.
Ovando.	do.	4,207	11	49.0 ¹	- 1.6	73 ¹	26	25 ¹	23	43 ¹	1.88	+ 0.46	0.45	0.0	9	2	22	4	w.	S. B. Muchmore.
Phillipsburg.	Granite.	5,275	6	54.5 ¹		82 ¹	9	25 ¹	23	47 ¹	2.90		1.36	T.	9	12	4	14	n.	Prof. G. T. Bramble.
Pipestone Pass.	Jefferson.	7,000																	Mrs. Th. Kiermeyer.	
Plains.	Sanders.	2,475	11	57.1	+ 1.1	85	7 ¹	32	23	43	2.16	+ 0.72	0.73	0.0	6	15	0	15	sw.	M. H. Pierce.
Pleasant Valley.	Flathead.	3,500	3	51.8		86	1	20	18	59	1.17		0.43	0.0	6					A. D. Stillman.
Polson.	do.	2,920	2	57.6		85	8	33	24	40	2.32		0.90	0.0	6					F. P. Brown.
St. Ignatius.	Missoula.	2,700	1	57.3		87	9 ¹	31	23	48	1.93		0.68	0.0	12	15	1	14		U. S. Reclamation Service.
St. Regis.	do.	2,650	2	55.8		89	16	28	23	58	1.22		0.68	0.0	5	10	15	5	ne.	R. D. Lee.
Saltese.	do.	3,600	5								2.72		1.10	0.0	4	21	2	7	w.	E. K. Tarbox.
Snowshoe.	Flathead.	4,500	3																J. S. Riter.	
Troy.	do.	1,880	15	59.6	+ 4.6	100	5	30	19	60	1.60	- 6.13	0.85	0.0	4	18	3	9	w.	W. E. Milnor.
Upper Lake McDonald.	do.	3,200	3								2.40		1.72	0.0	3					F. F. Liebig.
Woodville.	Jefferson.	6,376									2.84		0.74	0.0	13	6	12	12	sw.	Anna Kinman.
Wyoming.																				
Afton.	Uinta.	6,200	6																A. V. Call.	
Alta.	do.			50.6		77	27	18	18	46	2.79		0.70	2.0	13	8	8	14	sw.	Mrs. Lucy Brown.
Bedford.	do.	5,900	10																C. G. Heiner.	
Snake River.	Yellowstone Park.	7,000	3	47.8		74	27	20	24	48	2.80		0.70	7.0	7	7	12	11	s.	U. S. Army.
Nevada.																				
San Jacinto.	Elko.		5	48.8		70	1	21	30	39	0.93		0.48	0.0	3	12	8	10	se.	Moses Jones.
Idaho.																				
Albion.	Cassia.		9	56.4		86	15	23	23	52	1.24	+ 0.50	0.39	0.0	7	12	14	4	w.	G. A. Aaline.
Almo.	do.										0.86		0.30	0.0	5	16	9	5	nw.	Wm. L. Eames.
Bear Valley.	Boise.																		Francis Wallis.	
Blackfoot.	Bingham.	4,503	13	58.1	+ 0.5	85	25	23	22	49	1.70	+ 1.18	0.60	T.	10	12	14	4	sw.	E. A. Dowd.
Blanche.	Lincoln.			61.7		94	9 ¹	29	24	54	1.15		0.65	0.0	2					Solon A. Bray.
Bogus Creek.	Boise.	4,200																	F. P. Ingraham.	
Boise.	Ada.	2,770	24	63.1	+ 1.6	91	9	36	22	38	0.51	+ 0.10	0.11	0.0	8	12	12	6	nw.	U. S. Weather Bureau.
Bonanza.	Custer.	6,600																	Mrs. Emma Walter.	
Bonnara Ferry.	Bonner.	1,850	3	59.8		97	9	30	23	49	1.41		0.81	0.0	4	14	12	4	sw.	W. H. Heideman.
Boulder Mine.	Boise.	4,800									2.50		0.65	1.0	9	11	16	3		Patrick Moriarty.
Buhl.	Lincoln.	3,800	4	62.5		92	3	35	21 ¹	42	1.52		0.72	0.0	4	25	2	3	w.	Dr. D. P. Albee.
Burke.	Shoshone.	4,052	3	52.2		82	6 ¹	28	18 ¹	44	3.21		1.70	T.	9	11	11	8	sw.	W. A. Hall.
Caldwell.	Canyon.	2,372	5	62.2		93	9	29	22	50	1.17		0.40	0.0	6	15	7	8	s.	W. J. Boone.
Camas.	Fremont.	4,815		56.0 ¹		81 ¹	10 ¹	21 ¹	21	52 ¹	3.27		1.02	0.0	11				sw.	Ednah Faulkner.
Cambridge.	Washington.	2,651	14	61.0	+ 0.7	92	9	26	22	55	0.68	+ 0.04	0.20	0.0	7					C. H. Shepherd.
Chesterfield.	Bannock.	5,424	13	55.5	+ 4.3	87	17	19	23	51	1.83	+ 1.35	0.56	0.0	11	11	9	10		Chas. L. West.
Clawson.	Fremont.										3.30		0.70	0.0	12	12	9	9		E. J. Hopkins.
Coeur d'Alene.	Kootenai.	2,157	17	60.1 ¹	+ 3.8	85 ¹	6	34 ¹	22	41 ¹	0.60	- 0.84	0.60	0.0	1					Jas. T. Scott.
Culdesac.	Nes Perce.	1,520		63.6		90	5 ¹	29	12 ¹	49	1.52		0.46	0.0	4	17	7	6		R. R. Richmond.
Dent.	do.	1,350	4	62.2		95	9	36	24	46	3.03		0.72	0.0	8	15	10	5		Emil Schuessler.
Driggs.	Fremont.	6,097	3	51.0		75	25 ¹	22	18	45	3.00		0.62	T.	10	9	6	15	sw.	Walter H. Durrant.
Edie.	do.			51.8		72	25	24	23	44	3.47		2.10	0.0	8	19	9	2	s.	Geo. B. Edie.
Emmett.	Canyon.	2,350	3	65.0		95	9	34	22	44	1.77		1.00	0.0	4	19	4	7	w.	E. L. Marvin.
Forney.	Lemhi.	3,157	13	52.6	+ 1.3	87	28	20	22	53	3.19	+ 2.18	0.50	0.5	13	10	6	14	sw.	E. P. Treloar.
Garnet.	Elmore.	2,575	10	55.7 ¹	- 0.6	95 ¹	16	42	30	45 ¹				0.0						Mrs. Ines H. Davis.
Gilbert.	Nes Perce.	3,030		57.8		94	16	32	23	36	3.30		1.10	0.0	8	15	3	13	nw.	J. B. Loomis.
Glenora Ferry.	Elmore.	2,569	2	64.2		96	9	28	22 ¹	57	1.24		0.60	0.0	4	20	7	3	nw.	I. E. Perkins.
Grand Forks.	Shoshone.	3,000		52.9		89	7	27	16	60	0.42		1.30	0.0	11				n.	H. F. Kottkey.
Grandview.	Owyhee.										0.98		0.40	0.0	5	15	11	4	nw.	N. G. Massey.
Guffey.	do.	2,381		67.2		97	9 ¹	35	22	46	0.62		0.23	0.0	8	21	0	9	w.	F. N. Perry.
Halley.	Blaine.	5,347	7	54.8		81	15	19	21	43	1.61		0.90	0.0	6	11	13	6	sw.	U. S. Forest Service.
Henry.	Bannock.			51.6		78	21	19	22	49	2.61		0.66	0.0	12	9	15	6	w.	N. W. Infield.
Hotspring.	Owyhee.	2,752	4	63.8		90	16	35	23 ¹	45	1.08		0.60	0.0	3					J

TABLE 1.—Climatological data for September, 1909. District No. 12—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.				Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelting.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.		Number of cloudy days.	Prevailing wind direction.
Idaho—Cont'd.																				
Pocatello Nursery	Bannock	5,396	3	55.1		82	25	23	22	48	3.69		1.52	0.0	10	14	16	0	sw.	Peter F. Wrensted.
Poplar	Bingham			55.6		82	25	22	18	48	3.59		0.68	0.0	14	10	12	8	nw.	Stuart Lee.
Poplars	Canyon	2,425	10								1.60	+ 1.10		0.0	6					N. S. Dils.
Porthill	Bonner	1,665	17	56.2	+ 2.3	83	9	32	23	40	1.27	- 0.67	0.60	0.0	5	23	1	6		H. A. French.
Pyle Creek	Boise	3,100									2.16		0.85	0.0	6	14	7	9	ne.	Walter L. Cole.
Rupert	Lincoln	4,204	3	60.3		86	25	30	23	45	2.35		0.88	0.0	9	20	6	4	w.	Will Parry.
St. Maries	Kootenai	2,263	13	59.1	+ 1.7	90	16	30	18	49	1.56	+ 0.09	0.82	T.	6	15	2	13	sw.	J. S. Turnbull.
Salem	Fremont	5,000	5								3.18		0.74	0.0	11				sw.	Geo. H. A. Harris.
Salmon	Lemhi	4,040	4	56.9		82	26	26	18	47	1.85		0.41	0.0	14	15	7	8	w.	E. K. Abbott.
Salmon River Dam	Twin Falls		2	59.8		85	9	30	23	41	1.37		0.37	T.	7	17	6	7	nw.	Arch M. Gilbert.
Sheep Hill	Boise	5,000									2.60		0.66	0.0	13					Clifford M. Gardner.
Shoshone	Owyhee	6,200	3	59.5		85	25	27	22	39	0.65		0.28	0.0	5	8	22	0	w.	O. A. Pettit.
Silver City	Lincoln	3,968									1.26		0.51	1.0	11					A. O. Treeman.
Soldier	Blaine	5,140	13	55.8	+ 2.0	84	1	20	30	54	1.15	+ 0.61	0.60	0.0	3	16	9	5	nw.	W. W. Leek.
Standrod	Cassia		5	56.6		77	9	32	23	36	1.77		0.62	0.0	11	19	4	7	s.	T. B. Jones.
Sugar	Fremont		2	54.5		81	25	22	23	48	3.02		0.84	T.	9	14	12	4	sw.	Geo. F. Webb.
Sunnyside	Elmore			62.4		93	15	32	18	47	0.81		0.40	0.0	5	21	2	7	nw.	E. A. Wilnot.
Tilden	Bingham	4,420	4	57.2		87	1	20	22	50	1.07		0.40	0.0	5	12	12	6	sw.	Mrs. W. A. Edwards.
Twin Falls	Twin Falls	3,825	4	59.4		92	16	28	23	55	1.54		0.45	0.0	7	15	15	0	w.	Clyde C. Anderson.
Vernon	Fremont		12	54.7	+ 0.1	82	25	22	22	47	3.36	+ 2.40	1.10	T.	9	12	10	8	sw.	A. M. Slatery.
Wallace	Shoshone	2,728	2	57.2		88	6	32	23	47	2.49		0.96	0.0	11				e.	U. S. Weather Bureau.
Warfield	Blaine	6,388																		Wm. H. Warfield.
Wendell	Lincoln	3,400		62.6		93	9	26	22	50	1.02		0.28	0.0	5	15	8	7	w.	Chas. L. Dangler.
Washington.																				
Aberdeen	Chehalis	162	18	57.1	- 0.7	92	4	38	27	42	1.54	- 3.47	0.49	0.0	7	7	23	0	w.	C. Weatherwax.
Anacortes	Skagit	60	15	59.4		81	1	38	20	31	1.33	- 0.63	0.34	0.0	10	13	0	17		Douglas Allmond.
Baker	do.	200	3			96	5			3.48			1.17	0.0	9	15	3	12		Robt. M. White.
Bellingham	Whatcom	60	14	57.1	+ 0.9	81	5	37	27	34	1.72	- 0.93	0.57	0.0	6	15	9	6		Sanford B. Mayhew.
Blaine	do.	53	12	55.7	+ 1.8	75	2	33	27	33	1.62	- 2.20	0.52	0.0	8	12	8	10	sw.	A. A. Ruring.
Bremerton	Kitsap										0.69	- 1.37	0.32	0.0	6					U. S. Navy Yard.
Cedar River	King		2								2.75		1.04	0.0	7	15	3	12		Geo. Landsburg.
Centralia	Lewis	212	16	59.8	+ 1.4	94	5	34	18	48	0.98	- 1.71	0.36	0.0	6	11	13	6	w.	J. S. Turner.
Cheney	Spokane	2,351	10	64.3		91	8	25	29	56	0.27	- 0.72	0.27	0.0	1	14	11	5	sw.	G. A. Fellows.
Chopaka	Okanogan	1,200	1	61.7		95	1	29	23	52	1.23		0.70	0.0	6	11	4	5	ne.	Mrs. J. S. Myers.
Clearbrook	Whatcom	140	6	56.5		89	4	31	18	43	1.92		1.05	0.0	7	11	8	11	w.	Geo. Gibbs.
Clearwater	Jefferson	135	13	55.2	- 1.8	76	4	38	26	29	4.51	- 1.29	0.85	0.0	11	19	3	6		Alfred Ritchie.
Clealum	Kittitas	1,930	10	57.1	+ 1.7	94	1	26	18	54	2.25	+ 1.20	0.75	0.0	5	18	9	3	se.	J. A. Balmer.
Colfax	Whitman	2,300	20	58.6	+ 2.5	87	16	30	23	51	0.66	- 0.46	0.25	0.0	4					W. H. James.
Colville	Stevens	1,635	9	58.3	+ 1.8	95	1	27	18	56	1.64	+ 0.82	0.70	0.0	6	16	5	9	sw.	W. L. Sax.
Conconully	Okanogan	2,300	9	60.4	+ 5.1	92	1	33	18	43	1.56	+ 0.49	1.02	0.0	5	17	3	10	s.	Wm. Baines.
Coupeville	Island	150	13																	Wm. T. Howard.
Crescent	Lincoln	2,250	9	59.6	+ 3.0	90	6	30	23	49	0.52	- 0.47	0.39	0.0	2	21	4	5	sw.	Otto Wollweber.
Davenport	do.	2,450		60.3		87	5	27	22	43	0.59		0.45	0.0	3	25	4	1	sw.	W. H. Reed.
Dayton	Columbia	1,700	23	62.4	+ 3.2	89	16	35	22	39	0.90	- 0.20	0.41	0.0	6	15	9	6	s.	W. W. Hendron.
Detroit	Mason	31	1	60.8		93	4	39	27	42	0.84		0.38	0.0	5	18	7	5	s.	Walter O. Eckert.
Dixie	Walla Walla	5,000									1.96		0.69	0.0	5	8	9	13	w.	T. Z. Andrews.
Duckabush	Jefferson		1																	Emery J. Finch.
East Sound	San Juan	500	14																	Benj. E. Harrison.
Ellensburg	Kittitas	1,571	21	59.0	+ 2.7	95	1	30	23	48	0.56	+ 0.05	0.39	0.0	3	20	6	4	nw.	R. Lee Barnes.
Ephrata	Grant	1,265	6	63.0		97	6	33	30	38	0.30		0.20	0.0	2	17	10	3		D. Chaffee.
Forks	Challam	450																		C. W. Palmer.
Fort Simcoe	Yakima	1,427	15	66.9	+ 3.5	97	1	39	30	38	0.40	+ 0.01	0.20	0.0	3	19	7	4		Dr. G. A. Landes.
Goat Lake	Snohomish	2,900									6.39		1.92	0.0	9					C. M. Mackintosh.
Gold Creek	Yakima	2,600									1.00		0.45	0.0	5	19	0	11		John W. Anderson.
Goldendale	Klickitat	1,600	3	62.3		95	6	34	18	50	0.38		0.28	0.0	3	17	5	8	w.	Klickitat Abstract Co.
Granite Falls	Snohomish	397	6								2.83	- 1.96	0.96	0.0	10	16	3	11	nw.	C. H. Cleaver.
Hatton	Adams	1,100	4	63.8		98	1	28	18	53	0.49		0.25	0.0	4	16	4	10	sw.	Dr. A. F. Marion.
Huntsville	Columbia	1,400	1								0.68		0.30	0.0	4	21	4	5		Dr. B. Hill.
Irene Mount	Okanogan	3,015									1.08		0.49	0.0	4	10	13	7	s.	Mrs. E. W. Wheeler.
Kennewick	Benton	367	14																	L. W. Soth.
Kettle Falls	Stevens	1,265	4	61.4		96	1	33	21	48	1.69		0.74	0.0	7	19	9	2		Dr. A. E. Baldwin.
Kiona	Benton	430	4	66.0		95	7	35	23	50	0.03		0.03	0.0	1	20	9	1	sw.	Dr. F. S. Hedger.
Kosmos	Lewis	775	3	58.4		97	4	34	18	51	2.17		1.36	0.0	8	1	26	3	ne.	Hon. J. A. Ulsh.
La Center	Clarke	250	12	60.0	+ 1.0	93	4	33	19	43	2.38	- 0.53	0.90	0.0	7	16	7	7	sw.	Joseph Brothers.
La Crosse	Whitman	1,400		62.2		92	16	30	18	50	0.71		0.33	0.0	7	19	5	6	sw.	M. E. Schreck.
Lake Clealum	Kittitas	2,171									3.68		1.50	0.0	7	17	7	6	nw.	U. S. Reclamation Service.
Lake Kachess	do.	2,235		57.8		90	1	32	18	49	3.77		1.46	0.0	7	12	13	5	s.	Do.
Lake Keechelut	do.	2,479	1								4.33		1.90	0.0	8	6	3	21		Do.
Lakeside	Chelan	1,116	13	65.8	+ 4.1	95	1	41	30	36	0.99	+ 0.46	0.79	0.0	3	6	20	4	w.	W. H. Van Meter.
Laurel	Klickitat	1,900																		

TABLE 1.—Climatological data for September, 1909. District No. 12—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.		
Washington—Cont'd.																			
Ritzville.....	Adams.....	1,835	10								0.20	- 0.34	0.20	0.0	1				Agent, No. Pac. Ry.
Rook Lake.....	Whitman.....	1,750	3	62.0 ^b		91 ^b	5	28 ^b	18	46	0.22	- 1.00	0.12	0.0	3	17 ^b	4 ^b	7 ^b	P. M. Ramsey.
Rosalia.....	do.....	2,425	17	60.6	+ 4.5	88	6	36	23	38	0.23	- 1.00	0.12	0.0	3	19	5	6	Hans Mumm.
Russell's Ranch.....	Yakima.....	2,870									0.28	- 1.00	0.10	0.0	5	14 ^a	3 ^a	8 ^a	John Russell.
Seattle (1).....	King.....	123	18	60.1	+ 2.2	84	5	47	18	37	1.10	- 0.83	0.41	0.0	7	11	5	8	U. S. Weather Bureau.
Seattle (2).....	do.....			60.4		85	5	45	18	33	1.44	- 0.67	0.07	0.0	9	17	5	8	Univ. of Washington.
Sedro-Wooley.....	Skagit.....	38	12	57.8	+ 0.2	89	5	35	14	42	2.53	- 1.00	0.80	0.0	9	12	10	8	H. L. Devin.
Sixprong.....	Klickitat.....	1,240	2	67.3		95	6	39	30	39	0.19	- 0.11	0.11	0.0	3	16	6	8	C. E. Comstock.
Skagit Power Dam.....	Whatcom.....			60.0		92	2	42	16	42	4.80	- 1.90	0.00	0.0	9	12	0	18	Skagit Power Co.
Snohomish.....	Snohomish.....	50	15	59.2	+ 2.0	89	5	38	15	47	1.26	- 1.92	0.35	0.0	8	13	6	11	Irving B. Vestal.
Snoqualmie Falls.....	King.....	667	10	59.0	+ 1.6	89	4	37	18	48	5.25	+ 2.14	1.47	0.0	9	14	0	16	O. N. Wiswell.
Snyder's Ranch.....	Okanogan.....	2,200									0.72	- 0.38	0.38	0.0	3	18	10	2	George M. Snyder.
South Bend.....	Pacific.....	18	14																John L. Stevens.
Spokane.....	Spokane.....	1,943	23	61.4	+ 2.6	88	16	36	23	39	0.18	- 0.83	0.07	0.0	6	10	10	10	U. S. Weather Bureau.
Stebekin.....	Chelan.....	1,100	2																M. E. Field.
Stokes Ranch.....	Okanogan.....	2,670																	Amos Stokes.
Sullivan Lake.....	Stevens.....	2,700																	Mrs. Jennie D. McAbee.
Sumner.....	Pierce.....	77	1	58.6		90	4	34	5	49	1.12	- 0.09	0.38	0.0	8	15	4	11	H. E. Thompson.
Sunnyside.....	Yakima.....	740	14	63.2	+ 2.6	96	6	31	18	50	0.41	- 0.09	0.33	0.0	4	20	4	6	U. S. Reclamation Service.
Tacoma.....	Pierce.....	213	23	59.7	+ 2.1	86	4	42	18	33	0.90	- 1.57	0.33	0.0	9	11	9	10	U. S. Weather Bureau.
Tatoosh Island.....	Clallam.....	86	24	53.0	0.0	92	23	44	26	21	2.03	- 4.11	0.60	0.0	9	8	9	13	Do.
Tieton.....	Yakima.....	2,000		60.6		92	1	34	21	38	0.82	- 0.41	0.41	0.0	5	21	1	8	U. S. Reclamation Service.
Touche.....	Walla Walla.....	556	2	63.8		94	5	31	23	54	0.36	- 0.20	0.20	0.0	3	14	5	11	D. W. Dorrance.
Touche Ridge.....	Columbia.....	2,500									1.51	- 0.42	0.42	0.0	5	17	4	9	R. H. King.
Triplid.....	Douglas.....	900	5	68.4		99	1	39	30	37	0.36	- 0.32	0.32	0.0	3	20	7	3	J. C. Wheeler.
Twisp.....	Okanogan.....	1,619	6																Wm. G. Hughes.
Tyee.....	Chelan.....	2,000									1.38	- 0.62	0.62	0.0	4	11	15	4	Elias McCrea.
Vancouver.....	Clarke.....	100	34	62.4	+ 1.5	94	5	37	15	43	1.41	- 0.36	0.36	0.0	7	15	8	7	A. A. Quarberg.
Vashon Island.....	King.....	110	20	57.9	+ 0.6	79	4	43	23	30	0.64	- 1.70	0.19	0.0	6	14	9	7	Miss Gertrude McClintock.
Wahluke.....	Grant.....	410	5	65.9 ^a		99 ^a	1	32 ^a	23 ^a	53 ^a	0.08	- 0.08	0.08	0.0	1	23	2	5	F. C. Koppen.
Wallace.....	Okanogan.....	4,000									1.88	- 1.02	1.02	0.0	5	6	20	4	Geo. A. Wallace.
Walla Walla.....	Walla Walla.....	1,000	25	66.1	+ 0.7	93	16	41	23	40	0.61	- 0.32	0.26	0.0	8	11	12	7	U. S. Weather Bureau.
Waterville.....	Douglas.....	2,624	19	60.8 ^b		95 ^b	6	29 ^b	20	47 ^b	0.50	- 0.02	0.50	0.0	1	19 ^b	3 ^b	3 ^b	O. R. Hopewell.
Wenatchee (near).....	Chelan.....	1,169	10	63.1	+ 3.4	92	1	29	30	32	0.80	- 0.20	0.60	0.0	5	20	6	4	George Pitcher.
West Branch.....	Spokane.....	2,600																	Martin A. Murray.
Wilbur.....	Lincoln.....	2,203	10	58.4	+ 1.9	92	1	23	22	52	0.47	- 0.29	0.45	0.0	2	17	7	6	Rollin J. Reeves.
Yale.....	Cowlitz.....	375	2	61.7		93 ^a	6	35 ^a	23	42 ^a	0.89	- 0.10	0.45	0.0	14 ^a	9 ^a	6 ^a	sw.	L. F. Williams.
Zindel.....	Asotin.....	715	7	65.2	- 3.8	98	13	41	20	48	0.89	- 0.10	0.45	0.0	3	5	6	19	M. W. Zindel.
Oregon.																			
Albany.....	Linn.....	214	33	61.4	+ 1.6	95	4	40	17	42	0.93	- 0.91	0.40	0.0	7	17	5	8	F. M. French.
Ashland.....	Jackson.....	1,940	25	64.2	+ 2.7	95	15	40	18	51	0.72	- 3.44	0.33	0.0	5	7	15	8	F. H. Carter.
Astoria.....	Clatsop.....	11	47	62.0	+ 2.1	89	28	48	16	33	0.68	- 3.48	0.65	0.0	3	19	1	9	C. W. Lamar.
Baker City.....	Baker.....	3,466	20	58.0	+ 1.3	86	16	31	22	38	1.59	+ 0.79	1.01	0.0	7	12	9	9	U. S. Weather Bureau.
Bay City.....	Tillamook.....	14	13	56.4	0.0	86	23	35	20	51	2.50	- 2.28	0.58	0.0	10	17	6	7	J. O. Bosarth.
Birch Creek.....	Wheeler.....	2,900		61.8		91	16	34	22	40	0.36	- 0.11	0.11	0.0	6	10	16	4	F. S. Matteson.
Black Butte.....	Lane.....	1,200	8	57.8	- 0.1	90	4	33	18	41	1.79	- 0.26	0.75	0.0	6	18	7	5	James A. Putman.
Blalock.....	Gilliam.....	2,370	10	69.9	+ 2.0	98	5	44	18	36	0.30	- 0.15	0.20	0.0	3	12	7	11	Geo. W. Long.
Buckhorn Farm.....	Josephine.....	1,300	10	62.6	+ 2.4	99	15	36	21	57	1.55	+ 0.37	0.73	0.0	5	20	2	8	E. F. Meisser.
Cascade Locks.....	Hood River.....	1,000	18	62.3	+ 1.5	90	15	40	18	40	2.34	- 1.24	1.13	0.0	10	18	6	6	Val W. Tomkins.
Casadero.....	Clackamas.....	514		62.6		93	4	38	18	47	2.24	- 0.73	0.73	0.0	9	17	1	12	A. Drill.
Condon.....	Gilliam.....	2,884	1																C. H. Williams.
Corvallis.....	Benton.....	600	7	61.5	+ 1.4	88	6	40	12	40	1.16	- 0.23	0.60	0.0	7	21	5	4	Oregon Agric. College.
Dayville.....	Grant.....	1,500	14	62.0	+ 2.9	92	16	27	23	53	0.79	+ 0.02	0.25	0.0	7	17	11	2	Dr. J. Campbell-Martin.
Doraville.....	Columbia.....	600	7	58.8	+ 0.1	89	4	38	22	36	1.26	- 0.44	0.44	0.0	8	11	9	10	Jos. Hackenberg.
Drain.....	Douglas.....	300	6	62.4	+ 1.2	96	4	35	22	57	1.08	- 0.18	0.36	0.0	5	16	8	6	Ira Wimberly.
Echo.....	Umatilla.....	625	5	65.6		95	3	33	23	47	0.30	- 0.09	0.09	0.0	4	15	4	8	R. B. Stanfield.
Ella.....	Morrow.....	830	10	67.1		95	6	34	23	47	0.37	- 0.09	0.12	0.0	7	21	6	3	C. F. Troedson.
Eugene.....	Lane.....	449	18	61.9	+ 2.1	92	4	37	18	46	1.11	- 0.54	0.35	0.0	5	19	0	11	A. W. Jackson.
Fairview.....	Coos.....	142	11	55.2	- 3.9	105	15	32	16	67	1.67	- 0.47	0.56	0.0	6	19	2	9	Wm. Bettys.
Fall City.....	Polk.....	355	11																Chas. F. Vick.
Forest Grove.....	Washington.....	220	19								0.91	- 0.63	0.43	0.0	5				Pacific University.
Gardiner.....	Douglas.....	72	19	59.4	+ 0.6	100	15	40	29	42	1.07	- 1.75	0.50	0.0	4	19	6	5	Hon. J. S. Gray.
Glendale.....	do.....	1,441	5	63.4 ^d		97 ^d	6	32 ^d	22	52 ^d	0.70	- 0.40	0.40	0.0	3	23	1	6	B. J. Simpson.
Glenora.....	Tillamook.....	575	17	59.6	+ 2.3	95	5	32	18	47	3.48	- 2.15	1.31	0.0	8	16	7	7	Mrs. Jennie Recher.
Gold Beach.....	Curry.....	40	6	56.4	-														

TABLE 1.—*Climatological data for September, 1909. District No. 12—Continued.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		Prevailing wind direction.
Oregon—Cont'd.																				
Siskiyou	Jackson	4,115	1	58.8		88	15	33	30	37	1.02		0.59	0.0	5	19	7	4	e.	Louise F. Bates.
Stafford	Clackamas	499	13																	J. P. Gage.
The Dalles	Wasco	112	34	64.8	+ 2.3	93	5	38	23	40	1.05	+ 0.47	0.63	0.0	5	21	2	7	w.	S. L. Brooks.
Toledo	Lincoln	50	19	62.6	+ 4.3	95	15	35	22	54	2.05	- 0.78	0.70	0.0	6	23	5	7	nw.	C. B. Crosno.
Umatilla	Umatilla	340	19	67.8	+ 4.3	97	6†	39	18†	49	0.11	- 0.43	0.11	0.0	1	19	4	7	w.	Mrs. H. T. Duncan.
Vale	Malheur	2,450	17	62.8	+ 4.3	95	9	25	22†	57	0.94		0.22	0.0	8	19	9	2	e.	H. P. Osburn.
Wallace Orchard	Polk	170		61.3		94	5	36	18	44	1.65		0.75	0.0	5	10	11	9		Chas. A. Park.
Wallows	Wallows	2,935	6	57.8		89	9	25	18	53	1.23		0.41	0.0	9	7	6	17	nw.	L. J. Coverstone.
Warm Spring	Crook	1,800	7	60.7		95	15	31	18	45	1.15		0.50	0.0	5	15	11	4	nw.	Claude C. Covey.
Weston	Umatilla	1,800	19																	M. A. Baker.
Williams	Josephine	1,363	17	62.6	+ 3.2	100	5	32	18	60	1.19	+ 0.35	0.35	0.0	6	16	7	7	n.	J. M. John.

* Precipitation included in that of the next measurement.

** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.

† Also on other dates.

‡ Separate dates of falls not recorded.

§ Data are from standard instruments not supplied by the U. S. Weather Bureau.

|| Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

||| Estimated by observer.

|||| Precipitation for the 24 hours ending on the morning when it is measured.

T. Precipitation is less than 0.01 inch rain or melted snow.

*, †, ‡, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.

TABLE 2.—Daily precipitation for September, 1909. District No. 12, Columbia Valley.

Stations.	River basins.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Montana.																																	
Anaconda.	Missoula.	*	.81	.60			T.	.05			*	.50						T.			.16	T.								.02	.21	2.35	
Bison Mountain.	do	.20	.25	1.29	.04		T.				.19	.80	.50					.12			.33	.04									.05	3.81	
Columbia Falls.	Flathead.		.47								.28	.46						.15			.58	.87								.66		3.47	
Como.	Bitter Root.	.70	.28	.17		.03				.43										.05	.21								.32	.01		2.20	
Darby.	do			.85	.10						.13	.70									.32							T.	.42			2.52	
Dayton.	Flathead.																																
East Anaconda.	Missoula.	.44	.37	.18	T.	T.	T.	.08			.55	.10						T.		T.	.09	T.								T.	.19	1.90	
Fortine.	Flathead.		T.	.04							.15	.04						.07		T.	.03	.04								.60	T.	0.97	
Hamilton.	Bitter Root.	.30	.35	.40								.22	.04								.31	.08								.29		1.99	
Hat Creek.	Missoula.	.50	.28	2.00				.30			.50	.19	.34					.10		.14	.11	.13					T.		T.			5.59	
Jocko.	Flathead.																																
Kalispell.	do		.02								.14	.19					T.	.02		.01	.18	T.								.64	.01	1.21	
Lost Creek.	Missoula.																																
Missoula.	do	.23	.35	.80							T.	.19	.12					T.	.01		.04	.23	T.							.36	.06	2.38	
Ophir.	do	.06	.10	1.20							.14	.80	T.								.21											2.89	
Ovando.	do	.15	.16	.20	.05	T.					T.	.33						.06	T.		.45	.15	T.							.33		1.88	
Phillipsburg.	do	.17	.14	.56				T.				.136	.18					T.	T.	T.	.17	.02								.20	.10	2.90	
Pipestone Pass.	do																																
Plains.	Columbia.	.20	.53								T.	.21									.47								.35	.40		2.16	
Pleasant Valley.	Kootenai.		.20	T.							.10	.14	T.	T.							.27	.03								.43		1.17	
Polson.	Flathead.		.90	.17								.33									.22									.56	.14	2.32	
St. Ignatius.	do	.13	.18	.50	T.						.03	.11	.11							T.	.24	.08	.08	.01						.35	.11	1.93	
St. Regis.	Missoula.	.24	.44	.04								.04									.46											1.22	
Saltese.	do		.50															.30			1.10									.82		2.72	
Snowshoe.	Kootenai.																																
Troy.	do										.20										.30								.85	.25	T.	1.60	
Upper Lake McDonald.	Flathead.										.31	.37																				1.72	
Woodville.	Missoula.	.22	.45	.11				.15	.03		.17	.74	.42					T.			.07	.05	T.					.03		.04	.36	2.84	
Wyoming.																																	
Afton.	Snake.																																
Alta.	do		.10	.10		.01	.05	.57	.25		.08	.32	.70															.01	.05		.10	.55	2.79
Bedford.	do																																
Snake River.	do	.50	.20					.50			.10	.30	.70																		.50		2.80
Nevada.																																	
San Jacinto.	Snake.	.29		T.	T.	T.	.48																						.16	T.		0.93	
Idaho.																																	
Albion.	Snake.	.39	.07	.10		.20																						.04		.39	.05	1.24	
Almo.	do	.20	.30			.25	T.																				.01		.10			0.86	
Blackfoot.	do	.09	.08	T.	.30	.30		.06			.02	.20	T.							T.		T.						.09	.60		.08	1.70	
Blanche.	do					.50																								.65		1.15	
Bogus Creek.	Payette.																																
Boise.	Boise.	.11	.03	T.			.09	.10			T.	T.								T.	T.							.02	T.	.07	.02	.07	0.51
Bonanza.	Salmon.																																
Bonnere Ferry.	Columbia.										.38										.08	T.								.14	.81		1.41
Boulder Mine.	Boise.	.40	.12	.13	.09		.57	.05													.05										.65	.44	2.50
Buhl.	Snake.	.12	.14	.54																										.72			1.52
Burke.	Columbia.		.10								.08	.07							.04		.87	.16		.05						.40	.05	.25	3.21
Caldwell.	Boise.	.16	.30	.01																													1.17
Calla Ranch.	do																																
Camas.	Lost River Region.	1.02	.20	T.	.50	.53	.05	.09			.06	.16	.18															.09		.39		3.27	
Cambridge.	Snake.	.04	T.	T.			.04	.20			T.	.05																		.12	.11	0.68	
Chesterfield.	do	.11	T.	.12		.15	T.	.05	.10		.03	.13	.10																	.23	.25	1.83	
Clawson.	do	.70	.13	.10		.02		.42			.25	.20	.66																.10	.12	.10	.50	3.30
Coeur d'Alene.	Columbia.	T.									T.																						0.60
Culdesac.	Clearwater.										.30										.46									.41	.60	.35	1.52
Dent.	do	.07	.15								.12	.72									.41									.40	.63	.53	3.03
Driggs.	Snake.	.60	.15	.08	.03	.12		.62			.08	.30	.52																	.50			3.00
Edis.	Lost River Region.	2.10	.42	T.	.20	.12	.16	.08			.01																				.38		3.47
Emmett.	Payette.	1.00	.09																												.27	.41	1.77
Forney.	Salmon.	.50			.20	.25	.40	.14			.10	.45	.10								.10	.20								.40	.10	3.19	
Gilbert.	Clearwater.	.10	T.	T.							.30	1.10							T.		T.	.30	.10							.20	.40	.50	3.30

TABLE 2.—Daily precipitation for September, 1909. District No. 12—Continued.

Stations.	River basins.	Day of month.																																Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
<i>Idaho—Cont'd.</i>																																		
Salem.....	Snake.....	.59	.74	.13	.02	.51	.20	.19					.24															.15	.27	.14		3.18		
Salmon.....	Salmon.....	.41	.10	.10	.06	.03	.23	.17	.05		.06	.16	.06								.09	.21					T.		.12	T.		1.85		
Salmon River Dam.....	Snake.....	.17	.13		.37	T.	.11	.20																										

TABLE 2.—Daily precipitation for September, 1909. District No. 12—Continued.

Stations.	River basins.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Washington—Cont'd.																																	
Stokes Ranch	do																																
Sullivan Lake	Pend Oreille																																
Sumner	Puget Sound										.10	.02					.08	.01			.01	.38					.28				.24	T.	1.12
Sunnyside	Yakima		.03								T.																.06	T.			.33		0.41
Tacoma	Puget Sound									.01	.06						.04			.29	.05					.02	.22			.14	.07	T.	0.90
Tatoosh Island	Coast						.08	.08		.41							.15		T.	.56	.17		T.			.51				T.	.01	.06	2.03
Teton	Yakima								.02												.10						.28				.01	.41	0.83
Touchet	Columbia		T.								T.	.14									T.	.											

TABLE 2.—Daily precipitation for September, 1909. District No. 12—Continued.

Stations.	River basins.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Oregon—Cont'd.																																	
Miramonte Farm.....	Willamette.										.14										.28	T.					.12			.07	.60	.02	1.23
Monroe.....	do.										.04										.15	T.				T.	.12	T.			.34	.18	0.83
Mountain Home.....	Columbia.....										.18							T.	.07		.06	.50	.05				.40				.24	.08	1.58
Mount Angel.....	Willamette.										.13	.03									.61									.72			1.49
Mount Hood.....	Columbia.....										.02										.50	.20				.12				.12	T.		1.17
Mountain Park.....	do.																	.01			.04	.19	.18			.02			.01	.19	.20	.07	3.41
Mountain Ranch.....	Rogue.....																												.01	1.65	.20	.07	0.16
Musick.....	Umpqua.....		.10								.84	T.									.20						.05		.01	.28	.04	.73	3.82
Newport.....	Coast.....										.20	.06							.04		.06	.06				.15	.16			.33	.26		1.32
Nigger Flat.....	Malheur.....																									.01	.02		.26	.15	.20		1.14
Ochoco.....	Deschutes.....		.50									T.														.01	.02			.15	.20		1.71
Ochoco Creek.....	do.		.99								.20	.03														.02	.19		.09	.10	.09		0.55
Owyhee.....	Owyhee.....	T.	.25		T.	T.				T.																				.20	.10		0.84
Pendleton.....	Umatilla.....										.17	.15															</						

TABLE 3.—Maximum and minimum temperatures at selected stations for September, 1909. District No. 12, Columbia Valley.

Date.	Montana.						Idaho.																					
	Kalispell.		Missoula.				Afton, Wyo.		Boise.		Bonners Ferry.		Hotspring.		Lewiston.		Mackay.		Meadows.		Pocatello.		Salmon.		Shoshone.		Vernon.	
	Max.	Min.	Max.	Min.	Max.	Min.																						
1...	80	52	65	53			82	65	90	50	86	62	77	65	87	56	75	58	76	60	68	59	75	62	68	55	82	50
2...	68	56	71	57			82	61	88	54	76	60	74	60	67	47	80	54	75	54	74	57	77	51	72	40	65	56
3...	65	44	61	57			76	59	84	52	80	64	85	59	66	46	75	48	78	53	71	51	76	52	74	50	75	56
4...	72	39	69	48			81	56	86	43	85	65	87	62	70	47	79	48	79	49	72	54	81	51	80	48	77	47
5...	83	42	79	48			82	57	90	41	74	60	91	58	67	48	79	43	65	56	72	50	71	59	60	53	85	46
6...	78	45	80	47			75	60	91	42	76	58	90	62	64	49	77	49	75	53	74	55	75	50	72	50	88	46
7...	78	45	82	53			78	60	90	42	80	57	93	62	68	54	73	53	72	52	74	55	74	52	69	49	82	48
8...	82	45	82	47			83	56	84	48	86	53	91	56	73	47	83	45	77	54	75	53	79	50	72	50	80	43
9...	79	43	87	45			91	57	97	44	84	50	91	54	74	44	87	40	79	53	80	43	83	51	76	44	86	41

Washington.

Date.	Aberdeen.		Blaine.		Colville.		Kosmos.		Lakeide.		North Head.		North Yakima.		Odesa.		Port Crescent.		Seattle.		Sixprong.		Spokane.		Tacoma.		Tatoosh Island.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	85	44	74	43	95	45	90	43	95	62	66	52	96	63	93	48	65	44	82	57	92	75	86	67	80	53	65	50
2...	70	47	75	44	87	55	88	44	92	62	56	52	86	64	91	52	69	44	79	55	87	66	74	62	82	55	61	48
3...	68	55	74	45	90	50	85	46	91	60	58	54	88	55	86	55	67	46	75	54	89	62	81	56	77	54	55	49
4...	92	50	75	47	90	47	97	50	90	61	80	52	88	61	91	50	78	44	82	56	87	65	81	58	86	56	66	45
5...	74	51	74	47	94	42	91	49	95	59	60	56	90	56	95	53	64	50	84	58	94	60	88	50	85	57	59	52
6...	65	48	71	45	95	43	88	45	94	61	56	52	92	58	94	50	56	49	78	57	95	61	88	51	79	56	54	51
7...	68	52	70	48	93	42	81	44	94	63	62	52	89	60	91	50	62	49	68	52	93	60	87	56	70	52	58	49
8...	64	58	72	56	87	41	82	44	82	60	63	55	84	57	91	48	63	53	74	58	88	58	82	59	74	55	60	53
9...	63	56	62	56	88	40	71	47	83	55	59	55	82	56	85	45	58	52	69	56	87	57	84	52	69	55	59	53
10...	63	51	67	52</																								

TABLE 3.—Maximum and minimum temperatures at selected stations for September, 1909. District No. 12—Continued.

Date.	Oregon.																							
	Walla Walla, Wash.		Ashland.		Baker City.		Eugene.		Gold Beach.		Hermiston.		Marshfield.		Portland.		Prineville.		Roseburg.		The Dalles.		Vale.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.....	86	65	78	59	73	61	81	57	80	45	92	54	82	52	85	55	76	53	77	54	88	56	88	61
2.....	75	66	82	59	71	56	86	57	58	47	86	60	67	52	85	59	71	56	89	56	84	60	82	61
3.....	85	65	90	59	72	55	84	49	62	51	90	60	65	55	82	56	80	50	82	52	90	57	83	59
4.....	85	57	92	62	77	49	92	55	60	49	89	52	68	52	92	61	75	50	85	54	88	58	88	49
5.....	91	63	88	59	78	51	90	56	66	51	94	52	69	54	93	62	80	48	94	55	93	55	87	53
6.....	91	66	89	61	76	56	89	57	64	47	95	55	64	54	85	60	82	48	91	56	92	59	83	50
7.....	91	67	83	58	81	58	86	58	66	50	92	56	74	52	75	55	82	48	82	43	88	58	87	58
8.....	88	63	82	53	86	51	77	52	65	45	90	62	73	59	79	55	80	41	84	50	84	57	92	48
9.....	87	60	80	53	85	50	78	51	71	43	90	53	75	49	73	56	84	42	74	53	80	54	95	44
10.....	64	51	68	56	61	41	69	54	65	56	76	58	64	55	65	55	59	46	68	47	70	57	79	51
11.....	70	48	70	42	50	40	68	49	65	44	75	53	64	46	68	53	75	33	71	45	71	54	61	40
12.....	79	52	80	43	69	39	75	43	76	43	86	45	67	43	75	48	84	43	79	41	83	45	79	35
13.....	80	56	85	50	75	43	76	45	69	46	85	48	66	48	72	56	78	37	83	45	82	53	88	35
14.....	84	54	88	51	75	43	79	43	86	44	86	42	73	45	79	53	80	36	85	43	83	51	89	40
15.....	90	56	96	55	83	45	85	48	76	45	91	43	93	45	86	55	87	39	92	46	88	48	91	38
16.....	93	58	87	55	86	48	84	50	64	47	94	45	66	46	83	54	85	42	85	50	86	49	92	35
17.....	66	49	71	52	58	41	69	43	61	52	71	51	67	46	63	49	60	40	68	46	75	53	86	52
18.....	67	43	75	40	68	34	59	37	71	45	72	37	66	40	66	41	68	27	73	38	70	42	71	29
19.....	69	52	75	49	68	48	70	48	68	44	73	42	68	40	61	51	68	41	72	43	68	52	79	44
20.....	65	51	69	56	60	42	63	53	62	51	69	44	65	54	64	51	54	47	66	50	66	51	73	45
21.....	65	50	67	42	56	36	65	45	62	44	71	48	63	46	66	49	57	29	68	46	65	45	67	39
22.....	69	45	79	40	62	31	69	37	78	52	71	39	66	40	69	41	68	27	70	38	70	40	72	25
23.....	81	41	87	59	70	34	82	37	66	45	73	33	77	45	80	50	80	30	61	40	78	38	77	25
24.....	81	48	70	50	78	43	80	46	60	51	84	39	61	51	63	52	80	33	65	44	72	43	86	33
25.....	69	56	55	50	70	50	59	52	56	50	75	48	58	52	60	52	62	48	61	54	67	55	84	61
26.....	74	53	65	49	69	45	66	50	64	47	75	50	62	45	68	47	57	47	67	49	72	54	79	41
27.....	79	50	73	40	77	45	79	45	60	41	82	40	70	43	81	50	73	30	78	47	79	45	87	30
28.....	75	60	69	52	62	54	79	45	58	45	77	50	59	50	76	54	69	50	73	51	74	57	73	56
29.....	66	49	60	42	60	46	62	49	60	51	78	37	64	45	59	51	57	39	60	44	66	52	67	49
30.....	63	45	58	42	57	37	65	48	66	42	68	36	66	43	63	51	59	36	63	42	64	43	66	42
31.....																								
Mns.....	77.6	54.6	77.0	51.3	70.4	45.7	75.5	48.3	65.5	47.3	81.7	47.9	67.4	48.2	73.8	52.7	72.3	41.2	77.4	48.1	77.9	51.6	80.7	44.0